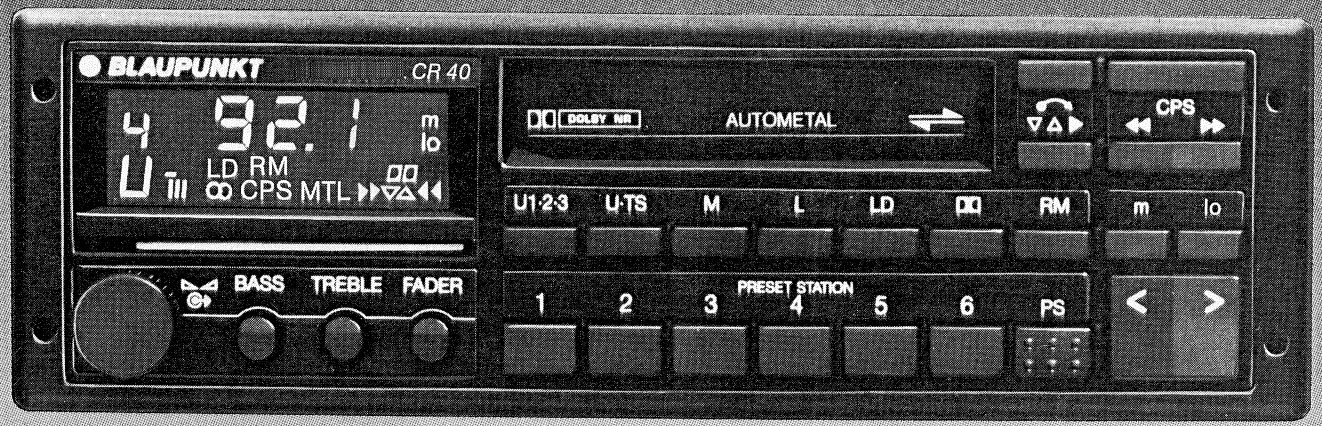
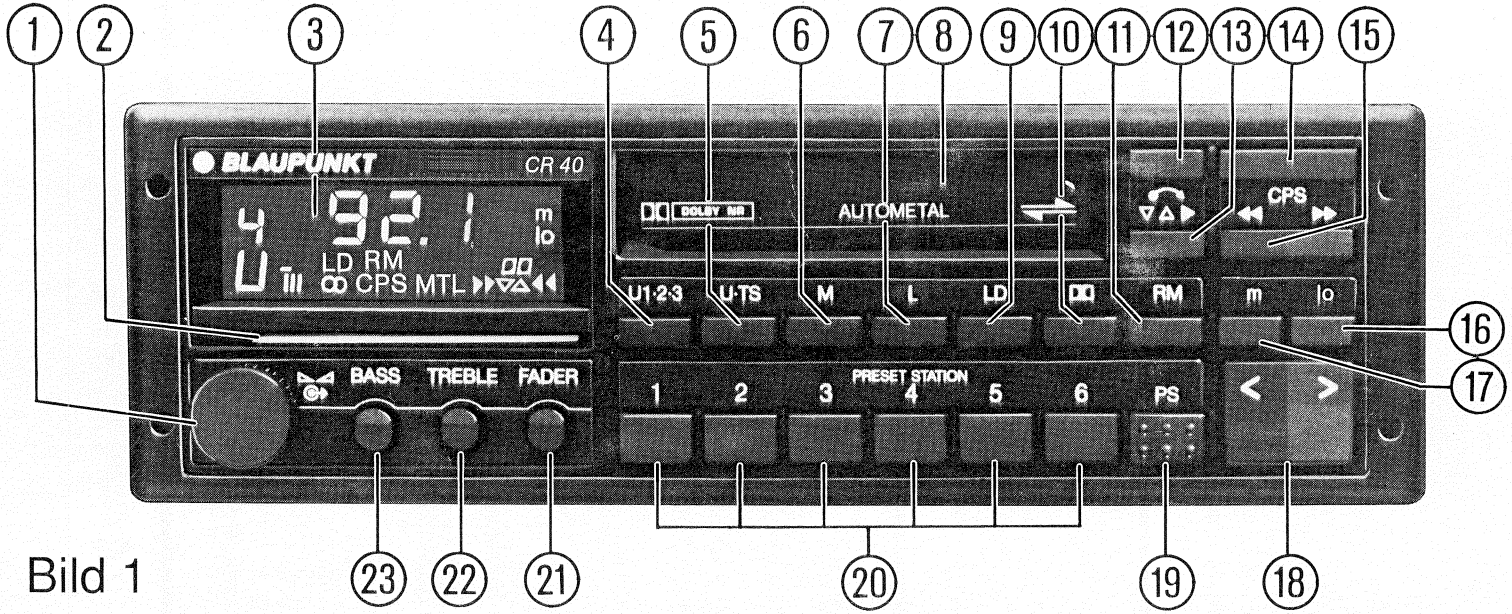
BEDIENUNGSANLEITUNG
OPERATING INSTRUCTIONS
MODE D'EMPLOI
ISTRUZIONI D'USO
GEBRUIKSAANWIJZING
BRUKSANVISNING
INSTRUCCIONES DE MANEJO
INSTRUÇÃO DE SERVIÇO



BLAUPUNKT

Bosch Telecom



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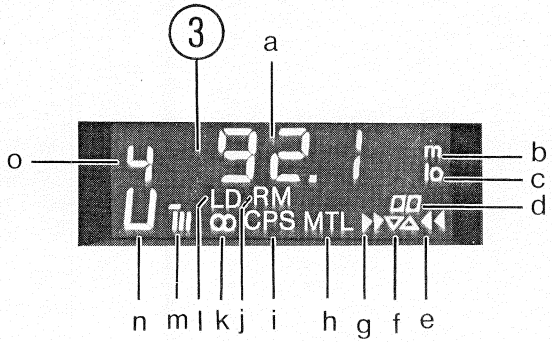

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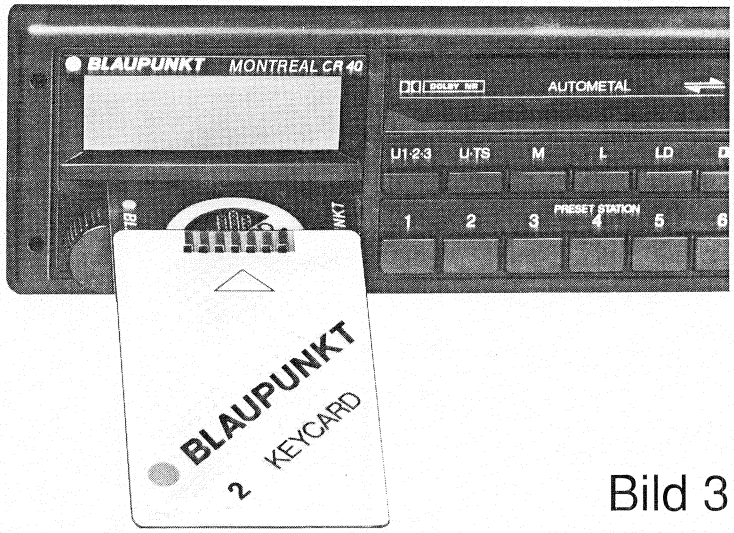

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Important Information

When connecting the set, observe the instructions thoroughly so as not to damage the power amplifiers.
Never connect the speaker outputs **to ground.**
If you prefer to install or extend the equipment on your own, carefully observe the included installation and connection instructions.

DSC (Direct Software Control)

This car radio is fitted with Direct Software Control for separately adjusting and memorizing the display ground colour, the search tuning sensitivity and the loudness, respectively. The corresponding adjustments are described in full detail in the section "Operating Instructions".

KeyCard

This car radio can be operated only with the proper KeyCard inserted. The code of this KeyCard is memorized by the radio's electronics.
Switch the set on by turning knob ①, then insert the KeyCard (fig. 3). The car radio is ready for operation.

When an incorrect KeyCard is inserted, four dashes "----" are indicated on the display.

In such a case, carefully read the instructions given in the section on "Theft Protection".

If you should lose your personal KeyCard or if the card should be damaged, contact an authorized special service center for help. Take the radio passport with you.

These service centers are all listed in a Car Radio Center Register (□). Please contact the Central Service Center of your country for more detailed information on the specialized service center of your region.

FM reception in the car

In-car FM reception offers you the same advantages as your home equipment.
FM will give you the finest quality of music and speech reproduction.
However, FM reception conditions are more difficult in a moving car than in your home, where the aerial is stationary. When your car is in motion, signal strength is constantly fluctuating, although you may not notice this.
The reception concept Codem III, developed by Blaupunkt minimizes the different reception interferences, such as varying station field strength, multipath reception and shadows. If the field strength is too weak (the reception conditions get worse), you should tune in to another FM station.
Optimum reception can be obtained only if the aerial is correctly mounted and in working order.

Quick Guide to Operation

This quick guide to operation consist of three parts:

Sound adjustment
Radio operation
Cassette operation

Twin functions are described separately. All **functions** which require more **information** are additionally described in the section **"Operating Instructions"**.

① **On/off/volume control**
Radio is switched on by turning this knob ("CArd" indicated in display)
When a KeyCard is not inserted within 10 seconds, the set is automatically switched off.
To switch the set on or off, just insert or remove the KeyCard.

② **KeyCard insertion**
Insert the KeyCard as indicated by the arrow.
Push the KeyCard all the way in (fig. 3). To remove again, simply press onto the card.

Sound adjustment

① **Balance control**
Adjusts the right/left speaker volume.
Push out the knob (self-locking).
Push the knob back in after adjustment.

⑧ **LD pushbutton**
Loudness - raises the bass appropriately at low volume for optimum acoustic impression.
Loudness on/off by pressing the LD pushbutton ⑨. The display indicates "LD" ③l when the Loudness function is active.

㉑ **Fader**
Adjusts the front/rear volume.
First press the knob to unlatch, then turn.
With two connected speakers, adjust the Fader to centre position. Press the knob again to latch.

㉒ **Treble control**
Press the rotary knob to unlatch.
↘ - increases treble.
↗ - reduces treble.
Press the knob again to latch.

㉓ **Bass control**
Press the rotary knob to unlatch.
↘ - increases bass
↗ - reduces bass
Press the knob again to latch.

Radio Operation

③ **Display to indicate**
a) frequency or
title preselection - together with CPS, it indicates the number of titles to be skipped.
b) m - manual station tuning
c) lo - normal station seek sensitively (local)
no indication - high-sensitivity station seek (distant)
d) Dolby B
e) fast rewind FR
f) track indicator
▽ side A or 1 is being played back
△ side B or 2 is being played back (reverse)
g) fast forward FF
h) MTL (auto-metal detection)
i) CPS (Cassette-Program-Search)
j) RM (Radio Mode during FF/FR)
k) ∞ (stereo)
l) LD (Loudness)
m) I-III, T (FM memory banks)
n) U, M, L (wave bands)
o) 1-6 (station preset pushbuttons)

④ **U 1·2·3 Button**
FM waveband switch (87,5 - 108 MHz) and selector switch for FM storage levels I-III.
A maximum of six FM stations can be memorized on each storage level by means of the station preset pushbuttons ⑳. Pressing the pushbutton ④ repetitively, changes the storage level from I to II or to III; the display ③m indicates which storage level is active.

⑤ **U · TS Button**
To automatically store and recall the six strongest stations of the region.

⑥ **M-Button**
Waveband selector switch for receiving medium wave stations in the range of MW 522 - 1620 kHz

⑦ **L-Button**
Waveband selector switch for receiving LW 153 - 279 kHz.

⑯ **lo Button**
To select between automatic and manual station seek sensitivities
lo - normal station seek sensitivity
station seeks stops at well-received stations only („lo" ③c lit).
No indication - highly-sensitive station seek
station seeks stops at weaker stations.
Due to differing local reception conditions, the station seek sensitivities can be programmed according to individual needs (please refer to "Change of Station Seek Sensitivity" for more details).

⑰ **m - Button**
Manual station tuning

⑱ **Station Seek Rocker Switch - Station Selection**

⑲ **PS Button (Preset Station Scan)**
To listen into the running programme of the memorized station presets of the selected waveband; in the case of the FM band, all three memory banks can be scanned.
Button depressed - station programmes are played for eight seconds each.
To stop this function, depress the button once again,

⑳ **Station Keys 1, 2, 3, 4, 5, 6 (Station Presets)**
To store a station – depress the button until the audio returns.
To recall a station, press the assigned station key.

Cassette Operation

③ **Display to indicate**

a) frequency or
title preselection – together with CPS, it indicates the number of titles to be skipped.
b) m - manual station tuning
c) lo – normal station seek sensitivity (local)
no indication – high-sensitivity station seek (distant)
d) Dolby B
e) fast rewind FR
f) track indicator
▽ side A or 1 is being played back
△ side B or 2 is being played back (reverse)
g) fast forward FF
h) MTL (auto-metal detection)
i) CPS (Cassette Program Search)
j) RM (Radio Mode during FR/FF)
k) ∞ (stereo)
l) LD (Loudness)
m) I-III, T (FM memory banks)
n) U, M, L (wave bands)
o) 1-6 (station preset pushbuttons)

⑩ **Dolby-NR* Button**
Button depressed – cassettes with Dolby noise reduction can be played.
These cassettes are distinguished by a considerably lower tape noise and by a higher dynamic response.

* Noise reduction system manufactured under the licence of Dolby Laboratories. The Dolby logo and the double D are registered trademarks of Dolby Laboratories.

⑪ **RM Button**
Radio Monitor – enables for radio operation during FF/FR.

⑫ **Button ≙ – Cassette Eject**

⑬ **Track Indicator/FF Termination**
Button depressed – tape deck starts playing back the other side of the cassette.
The display ③f indicates, which track is being played back.
▽ – side A or B is being played back.
△ – side B or 2 ia being played back.

⑭ **CPS Button** (Super-CPS)
To select specific music titles. Then display shows the number of titles to be skipped.

⑮ **Rocker switch - fast winding**
◀◀ - fast rewinding
▶▶ - fast forward
Fast winding is stopped by pressing the button ⑬.
At the beginning and the end of the tape fast winding is stopped automatically. The set switches over to cassette reproduction (at the end of the tape after automatic track switching)

Operating Instructions

ON/OFF ①
Radio switched on by turning this knob ("CArd" indicated in display).
When a KeyCard is not inserted within 10 seconds, the set is automatically switched off.
To switch the set on or off, just insert or remove the KeyCard.
To switch the set off, press onto the KeyCard and remove it.
After that, "L" is displayed for approximately 10 sec. before the set is finally switches off automatically.

Sound Adjustment

Volume ①

Treble (TREBLE) ㉒
Pop-out rotary adjusting knob. Depress to unlatch.

Bass ㉓
Pop-out rotary adjusting knob. Depress to unlatch.

Balance control ①
Pull-out adjusting knob for setting left/right speaker volume.
After adjusting, press the knob back into position.

Fader ㉑
Pop-out rotary adjusting knob for setting front/rear speaker volume.

Depress to unlatch.

When four speakers are connected, maximum volume is obtained with the adjusting knob set to the centre position.

When two speakers are connected, set the fader control to centre position.

Loudness

At low volume, basses tend to be heard less than medium or higher frequencies.

The more volume, the better balanced is the acoustic impression. As the type of automotive HiFi equipment (amplifiers) used, as well as the mounting positions and equally the speaker types have a close influence on individual acoustic impression, the Loudness has been made adjustable.

To switch the Loudness on or off

- Press the "LD" button ⑨. The display ③l shows "LD" lit when Loudness is on.

To set the threshold value:

- Depress the "LD" button ⑨ for approximately 8 secs until "LEVEL" starts flashing in the display together with the numerals 1 - 6.

Press the station seek rocker switch ⑱
(← down, → up) to select the required level.
To memorize this setting
- Depress the "LD" button ⑨ temporarily.

Radio Operation

This radio set has two selectable wavebands:
FM 87,5 - 108 MHz
AM 522 - 1620 kHz
LW 153 - 279 kHz.

Waveband Selection

- Press the button ④, ⑥ or ⑦ to select the waveband.

Station Selection

... using the station seek rocker switch

Start the station seek by
- depressing the station seek rocker switch ⑱ until the desired station is tuned in.
  Hold the rocker switch for more rapid tuning.

... using the station presets and the memory banks

This can be achieved only, when stations have been assigned to the station preset buttons as described in section "Station storing".
- If you want to call up FM stations, depress the U 1·2·3 ④ button repetitively, until the desired memory bank I, II or III ③m shows on the display.
- Press the appropriate station key.

Stations memorized in the Travelstore range can be called up by depressing the U·TS ⑤ button.

... using Preset-Scan (PS) ⑲

To automatically scan and listen into the memorized station programmes of the selected waveband (in the FM mode on all memory banks I, II, III and T).
This can be achieved only, when stations have been assigned to the station preset buttons as described in section "Station storing".
- Press the "PS" button temporarily and the sets tunes into the next memorized station and so on.

Empty station preset keys will be skipped. The Preset-Scan function can be activated in all wavebands. When you have found your favourite programme:
- Press the "PS" button again to deactivate the PS function.

Station storing

Separate station storing is possible with either KeyCard.
Once the KeyCard has been inserted, its corresponding station presets can be called up.

... using automatic station seek tuning

In the FM mode, 3x6 stations can be memorized on three memory banks, each of which can be selected via the U 1-3 button.
In the AM and LW mode, as much as 6 stations can be stored respectively.
In additional to that the Travelstore function makes it possible to automatically memorize the six strongest FM stations of a particular region.
When needed, the programme or the station can be called up again via the pushbutton. To memorize a station procede as follows:
- If you want to memorize a FM station, select the memory bank by depressing the U 1·2·3 ④ button or the U_{TS} ⑤ button.
  The display ③m then indicates either I, II, III or "T".

To store
- depress e station key ⑳ until the audio, which will be disconnected during the storage, returns (after 2 secs. approximately) to indicate that the station has been memorized.

The display ③o shows, which station key was pressed.
Go through this procedure again if you want to store further stations under the other station keys as well in all wavebands and on three FM memory banks. Whenever the station seek stops at a station which has already been memorized, then the corresponding station key will be indicated in the display ③o together with the memory bank, but the latter only if it is an FM station.

... using manual station seek tuning

If you want to store a station without yet being within that particular station's range:
- Press the m button ⑰ until the display ③b indicates "m".
  "m" stands for manual and signifies manual station seek tuning in this context.

To memorize an FM frequency
- Select the appropriate memory bank via the U 1·2·3 ④ button.
- Press the station seek rocker switch to tune to the desired frequency.

To store the frequency:
- Press the corresponding station preset button (until the audio, which will be disconnected during storage, returns).

Having stored a station with the manual station seek tuning function:
- Switch back to the station seek mode using the lo ⑯ slide switch.

Moreover, the set features last station memory (local and distant) in either waveband.

... using Travel Store

With the Travel Store function, you can store six strongest FM station frequencies sorted according to their field strength of a particular region you may be traveling in.
This function should preferrably be used during long-distance travels.

To switch on the Travel Store function and activate station storing:

- Press the U·TS ⑤ button for 2 secs. approximately.

The audio will be disconnected during station storage.

The Mono Switch

The radio set is fitted with a Blaupunkt FM tuner (Codem III), which provides for mostly interference-free reception on the road.
In particualr areas with insufficient station field strength and/or multipath reception due to reflections, the radio set gradually switches over from stereo to mono mode. This improves the on-the-road reception quality considerably.

Station Seek Sensitivity Adjustment

a) with the lo ⑯ slide switch.
The display ③c shows, which sensitivity mode is active.

lo - normal station seek stop sensitivity (local)
no indication - high station seek stop sensitivity (distant)

b) via the software
When the station density is extremely high or low, it can be useful to adjust the two sensitivity levels separately.

- Select the sensitivity level to be changed.
- Actuate the lo ⑯ key for approximately eight seconds, until "lo" is displayed together with a numeral 1, 2 or 3 where 1 stands for ≙ high sensitivity
and 3 for ≙ low sensitivity.
- Use the station seek rocker switch ⑱ (← down; → up) to select the desired sensitivity.

To store the setting:

- Actuate the lo ⑯ key.

Cassette Playback

Title recordings on cassettes and playback should preferrably be done on identical systems (noise suppression system/type of tape) so as to achieve authentical reproduction quality.

- Please check whether the cassette has titles with Dolby noise suppression.
- Load the cassette side A or 1 facing up into the cassette slot; never force the cassette into the slot.

The cassette is moved automatically into the replay position. The tape will be played in the direction that was last used.

The corresponding track indicator will light up.

▽ - side A or 1
△ - side B or 2.

At the end of the tape, the set switches over to the other side of the cassette (autoreverse).
To remove an inserted cassette:

- Press key ⑫.

Auto-Metal Detection

This radio set features Auto-Metal Detection (METAL, CrO_2, Fe_2O_3). "MTL" shows on the display ③h when METAL or CrO_2 cassettes are being played.

Dolby No.

Cassettes with or without Dolby noise reduction can be played.

Cassettes with Dolby noise reduction are distinguished by a considerably lower tape noise and by a higher dynamic response.

Switch Dolby on/off:

- Pressing key ⑩.

An activated Dolby NR function will be indicated on the display ③d.

* Noise reduction system manufactured under the licence of Dolby Laboratories. The Dolby logo and the double D Dolby symbol are registered trademarks of Dolby Laboratories.

Autoreverse ⑬

This set is fitted with a high quality autoreverse cassette player.
After insertion of the cassette, the tape will be played in the direction that was last used.
The display shows either ▽ for side A/1 or △ side B/2.

At the end of the tape, the set switches over to the other side of the cassettes (autoreverse).

The direction can be changed any time. To change over to the other side of the cassette

- press the key ▽△ ▶ ⑬.

Attention!
Stiff-going cassettes may change over uncontrolled from one track to the other. If this happens, please inspect the tape winding and if necessary, rewind the cassette.

Title Selection with Super-CPS ⑭

CPS stands for: **C**assette **P**rogram **S**earch and provides for direct selection of a specific music title.
A maximum of 9 titles can be skipped forwards/backwards.

To switch the CPS function on/off:

- Press the CPS ⑭ key.

An activated CPS function will be indicated on the display ③i.

To select a particular music title:

- Press the rocker switch ▶▶ ⑮ (forward) or ◀◀ (back).

The display ③a then indicates the number of titles to be skipped.

To increment, press (◀◀ or ▶▶) of the rocker switch again and to finish press (◀◀ or ▶▶) again.

Radio Operation during FF or FR

is possible with the **RM** (**R**adio **M**onitor) ⑪ key

To have radio operation during cassette FF/FR (also during CPS) instead of audio-muting:

- Press the RM ⑪ button, the display ③j will then show "RM".

As soon as FF or FR begins, the set changes over to radio operation and intunes to the last adjusted station.

To cancel this function, press the RM key once again. "RM" will then go out.

Theft Protection

This car radio can be operated only with the proper KeyCard inserted. The code of this KeyCard is memorized by the radio's electronics. When an incorrect KeyCard is inserted, four dashes "----" are indicated on the display..

The radio set is practically blocked. After another 10 secs. "CArd" flashes in the display. Insert the proper KeyCard and then swith the set off and back on. The car radio is ready for operation. If four dashes are displayed again, wait another 10 secs.

After the fourth erraneous input, the waiting time involved extends to 1 hour. Another 16 futile attemps to make the radio play requires decoding by authorized service centers. Disconnecting the radio set during an actual waiting time starts a new waiting time cycle.

Selecting the Display Colour

The display colour can be changed from green to red to adapt to specific car lighting situations.

To change the display colour:

- Switch the radio off.
- Press and hold the r. h. side of the station seek rocker switch and
- Switch the radio on.

Care of cassettes and unit

Handle your cassettes and unit carefully. We recommend to use C 60/C 90 cassettes.
You may expect less wear and tear of the cassette mechanism and better operation behaviour from a cassette produced by a leading manufacturer.
Metal, ferrous oxide, chromium dioxyde, and ferrichrome cassettes can be used.
Protect your cassettes against dirt and dust by keeping them in suitable containers.
Heat exceeding 50°C, e.g. when exposed to direct sunlight, may damage your cassettes.
At temperatures below 0°C, do not start playback of your cassettes before they have warmed up sufficiently.
This helps to avoid irregular tape transport.
Constant wear of the tape soils the cassette mechanism. Therefore, the head, the rubber pressure rolls, and the capstan shaft are to be cleaned so that a trouble-free reproduction and function of the cassette unit is ensured.
These parts should be cleaned with a **cotton pad dipped in alcohol.** Never use hard tools for cleaning. After a lengthy period of operation, the unit should be checked and thoroughly cleaned by a qualified person.
This maintenance work is not part of the service covered by our guarantee conditions.

Technical Data

Output power:
2 x 26 W or 4 x 7 W acc. to DIN 45 324/3.1 with 4 Ω

FM:

Sensitivity:	0,9 µV at 26 dB signal-to-noise-ratio
Frequency response:	35 - 16 000 Hz - 3 dB (constant)
Selectivity:	> 80 dB at ± 300 kHz > 40 dB at ± 200 kHz
Cross talk attenuation:	> 30 dB bei 1 kHz

Cassette:

Frequency response: (constant)	30 - 18 000 Hz - 3 dB
Wow/Flutter:	0,25 % typ.
Signal-to-noise-ratio:	64/56 dB typ. with Dolby B/without Dolby

Preamp-Out: Output impedance 150 Ω